

AL-1-1805
C2

Tomorrow's News

Volume 5 Issue 2

August 2005

The Tomorrow Project® — Albertans Studying the Connection Between Lifestyle and Cancer

Who's Who In The Tomorrow Project

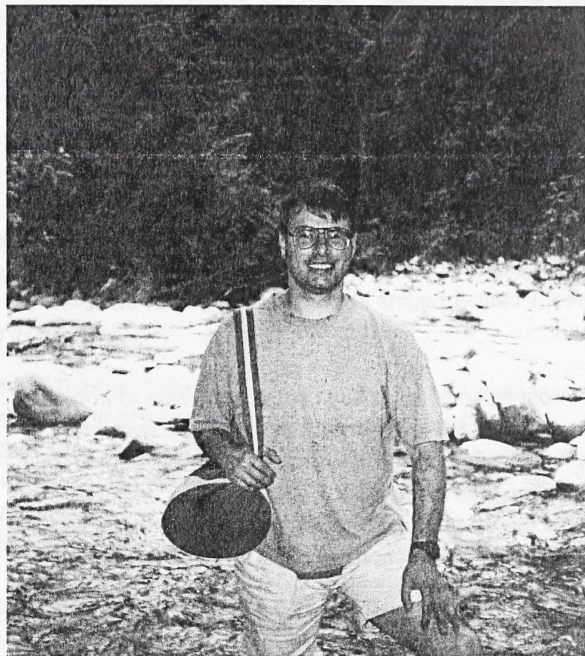
Meet Gary Moorhouse, a 46-year-old Railcar Mechanic and Inspector from Edmonton, Alberta. Gary is one of the 18,000 participants in *The Tomorrow Project*.

Gary immigrated to Canada from Britain with his family when he was 10 years old. Since then, with the exception of one year spent living in Ontario, he has always called Edmonton his home.

Gary's father Graeme made the decision to move to Canada to provide Gary, his three brothers and three sisters with new opportunities and experiences. Gary tells us that his family almost chose to move to Australia, but decided against it because "there are bigger bugs over there!" The move to Canada worked out well for Gary; he found a career that he enjoys and has a wonderful family.

Gary began his career as a Railcar Mechanic and Inspector by chance over 21 years ago, when his oldest brother Zane mentioned that the Canadian National Railroad (CNR) had a job opening. Gary applied, and has been inspecting and repairing freight cars ever since. He works the night shift from 11:00 p.m. until 7:00 a.m., and says that he will continue to do so for the next eight and half years until he retires.

Gary met his wife, Ruschell, at the pharmacy where she used to work. He used to stop by the store sometimes on his way into work. Although he admits he was "quite the bachelor at the time", Gary worked up enough courage to offer Ruschell a ride home from work one day. She accepted, and the rest is history! Today, Ruschell works as an Adult Employment Counsellor at Northwest College.



Study participant Gary Moorhouse is a Railcar Mechanic and Inspector who lives in Edmonton with his wife Ruschell and his two sons.

Gary and Ruschell have two children, six year old Adam and eight year old Joshua. "My family is my number one priority," says Gary. "And, my wife is a great mom and is very devoted to our children."

Gary decided to join *The Tomorrow Project* when two of his coworkers and friends were diagnosed with cancer. He says that this is when he came to "truly appreciate how helpful *The Tomorrow Project* could be in the future."

Shedding Light on Cancer

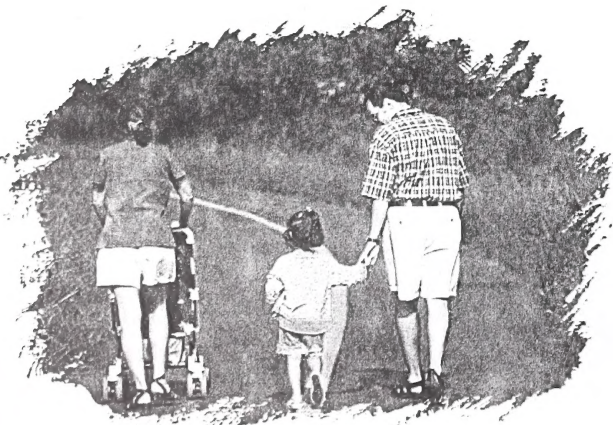
What is Cancer?

A common misconception about cancer is that it is a single disease. In fact, cancer is actually a related group of more than one hundred different diseases. What is similar for all types of cancer is that they produce abnormal cells within the body that divide and spread without control, making new cells that are not needed. Normal cells, on the other hand, grow and divide in a controlled manner, producing only enough cells to keep the body healthy.

Cancer can begin in almost any part of the body, and behaves differently depending on its point of origin. Cancers are almost always named after the place in the body where the abnormal growth begins (the primary site). For example, breast cancer starts in the breast and colorectal cancer begins in the colon (large bowel) or rectum.

Most types of malignant cancers can spread from the original tumour to other parts of the body (the secondary sites) by way of the lymph nodes or the blood stream. This process is called metastasis. It is the ability of *malignant tumours* to invade and spread to other tissues in the body that make some cancers more difficult to treat than others.

It is no secret that cancer takes the lives of more than 5,000 Albertans each year. But with research, the development of new treatment options, preventative lifestyle changes and organized screening programs, there are new opportunities to change cancer rates in this province for the better.



The Language of Cancer

Benign tumour:

A non-cancerous growth that does not spread to surrounding tissues. After a benign tumour has been completely removed from the body, it rarely recurs.

Biopsy:

The removal of a small piece of tissue for examination under the microscope to help detect or rule out cancer.

Carcinogen:

Any substance that can cause cancer.

Carcinoma:

The most common type of cancer. It may develop in cells that line the lung, intestines, bladder, breast, uterus, kidney, and prostate or in skin cells.

Chemotherapy:

The use of drugs to treat cancer.

Lymph Nodes:

Collections of small bean shaped glands that are most commonly found in the arm pits, groin and neck: common sites for the spread of cancer.

Malignant tumour:

A tumour consisting of cancerous cells. Cells from a malignant growth can break away and start secondary tumours elsewhere in the body.

Pre-cancer:

A condition that has the potential to develop into cancer.

Radiation therapy (or radiotherapy):

The use of gamma rays or high energy x-rays to damage or destroy cancer cells.

Staging:

A way of describing the size of a tumour; the extent of spread locally; the extent of spread to the lymph nodes; and whether or not the disease has spread to other parts of the body.

Treatment and Research

Advances in Cancer Treatment: A Canadian Perspective

Canada has experienced considerable progress in the fight against cancer, particularly in the last decade. Extensive research has led to an increase in knowledge about cancer and how it affects humans, resulting in more effective treatment options. For example, women diagnosed with breast cancer today are more likely to lead long and healthy lives after treatment, thanks to greater access to mammograms and improvements in cancer therapies. Mammograms detect cancers early when they are less malignant and more treatable. In the 10 years between 1992 and 2001, women's risk of dying from breast cancer dropped by 20 per cent.

Over the past three decades, there have also been marked improvements in survival rates for cancers that occur in children who are less than 15 years of age. Low death rates for leukemia and Hodgkin's disease, for example, reflect the major advances made in treating these cancers over the past 30 years. About 1,300 Canadian children develop cancer each year but less than one-fifth of those diagnosed will die from cancer.



Technologist preparing a mammography unit

Spotlight on Alberta-based Breakthroughs in Cancer Research

Dr. Greg Cairncross, the Alberta Cancer Foundation Chair in Brain Tumour Research, was involved in an international trial designed to develop more effective treatments for a common type of brain cancer. The trial combined a new chemotherapy drug with radiotherapy, and found that 26% of patients on the combined therapy were still alive after two years, compared with only 10% of those who had received radiotherapy alone. Although the new therapy is not a cure, it appears to increase survival time, and represents a huge step forward in the search for better treatment of brain cancers.



In June 2005, a national study headed by an Alberta surgeon led to an important breakthrough in lung cancer research. Dr. Timothy Winton, with the University of Alberta Hospital in Edmonton, found that a combination of well-known chemotherapy drugs combined with surgery is significantly more effective in treating lung cancer than just surgery alone. This seven year study is good news for those diagnosed with lung cancer, one of the most common forms of cancer throughout the world and a leading cause of death in North America.

How Will The Tomorrow Project Make a Difference in Cancer Research?

A cohort study like *The Tomorrow Project* tracks trends in cancer causes and prevention in a population by gathering information from people who have never been diagnosed with cancer. While it is now generally accepted that as many as 50% of cancers could be attributable to behaviours such as smoking, being physically inactive or consuming a sub-optimal diet, there is still a great deal of uncertainty about the specific factors which promote cancer development, and also about the magnitude of cancer risk associated with each behaviour. The data being collected from Albertans today will help to answer some of these questions and will provide a legacy for the scientists of the future as the fight against cancer continues.

Sources:

Alberta Cancer Board; *Cancer in Alberta: A Regional Picture*; 2005
 Canadian Cancer Society; *Breaking Through: The Power of Research*; 2004
 Canadian Cancer Society; *Canadian Researchers Improve Lung Cancer Survival with New Chemotherapy Treatment*; June 22, 2005; www.cancer.ca
 Canadian Cancer Society; *Cancer Glossary*; www.cancer.ca
 Canadian Cancer Society; *Research milestones from the 2000s*; www.cancer.ca
 National Cancer Institute of Canada; *Cancer Statistics, Progress in cancer control over the past few decades*; www.ncic.cancer.ca
 National Cancer Institute of Canada; *Canadian Cancer Statistics*; 2003 and 2005

The Tomorrow Project Welcomes a New Director

Welcome to Dr. Paula Robson, who joined the Project team in August 2004. Paula obtained her PhD in nutrition from the University of Ulster in 1995. Since then, her research has included studies on the effects of diet on bone health in young people, effects of milk drinking on risk of stroke and heart disease in older men, and dietary factors affecting toxicity of methylmercury in the Republic of Seychelles. Some of Paula's earlier work involved reviewing the effects of diet and lifestyle on cancer risk, so she is very excited to be part of *The Tomorrow Project*, which she strongly believes will make a big impact in the field of cancer research and prevention in Alberta, and across Canada.

Born and raised in Northern Ireland, Paula moved to Alberta with her husband in June 2004. She loves the clean air and open spaces of Alberta, enjoys hiking in the summer, and has promised her husband that she will take skiing lessons next winter!



Tomorrow Project Director
Dr. Paula Robson

Study Update

With the addition of new participants over the past year, enrollment in *The Tomorrow Project* is now around 18,000. The information that you provided when you joined the study is almost ready for analysis and staff are busy entering data from over 8,500 Survey 2004 follow-up questionnaires.

Are you feeling embarrassed because you have a questionnaire still waiting to be mailed? It is never too late! If you have questionnaires at home, please send them along as we will be delighted to receive them. A cohort study like *The Tomorrow Project* relies on a high response rate, therefore every survey counts.

Research Project International



Research from *The Tomorrow Project* was recently presented at national and international conferences. Dr. Paula Robson described the use of nutritional supplements among participants in *The Tomorrow Project* at a joint Canadian/US epidemiology meeting in Toronto in June. Data from over 8,000 participants were analyzed to evaluate the extent of supplement use and to determine characteristics of regular supplement users. The following information was included in the findings:

- 75% of women and 54% of men in the *The Tomorrow Project* were regular users of nutritional supplements such as vitamins, iron, calcium, selenium, etc.
- Regular use of supplements appears to be clustered with certain 'healthy' lifestyle behaviours.

This information will be important to bear in mind in future studies which will examine links between nutrient intake, lifestyle and cancer risk in *The Tomorrow Project*. For more scientific findings from this meeting visit: <http://www.ser-cseb2005.org/abstractbook.pdf>.

Dr. Robson also presented data from *The Tomorrow Project* at a meeting in Boston of the North American Association of Central Cancer Registries. Data from the study were used to illustrate predictions about a potential change in the rates of colorectal cancer in women. Other studies have reported that the use of hormone replacement therapy (HRT) might have a protective effect. Some experts have predicted that rates of this common cancer will rise in the next few years because of the recent decline in use of HRT among menopausal women. A cohort study such as *The Tomorrow Project* provides an excellent foundation from which to study these effects in the population.

Need To Contact Us?

Email:	tomorrow@cancerboard.ab.ca
Toll-free telephone:	1 (877) 919-9292
Outside Canada:	(403) 521-3122 (new # - call collect)
Mail:	<i>The Tomorrow Project</i> Alberta Cancer Board c/o Tom Baker Cancer Centre 1331 - 29 Street N.W. Calgary, AB T2N 4N2 Canada
Web site:	www.thetomorrowproject.org